

II. AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (canceled)

Claim 2 (currently amended): The method of claim ~~1~~ 7, wherein said shell egg is at or below room or ambient temperature prior to treatment.

Claim 3 (currently amended): The method of claim ~~1~~ 7, wherein said contamination further comprises contamination by bacteria or other microorganisms, and wherein said contamination is reduced by at least 5 log₁₀ cfu/g.

Claim 4 (canceled)

Claim 5 (currently amended): The method of claim ~~1~~ 7, wherein, following said introduction of gaseous ozone, the internal temperature of said sealed vessel is maintained at a temperature of about 1 to 50°C.

Claim 6 (currently amended): The method of claim ~~1~~ 7, wherein said introduction of gaseous ozone increases the internal pressure of said sealed vessel to about 1 to 40 psi above atmospheric pressure.

7 (currently amended): ~~The method of claim 1;~~ A method for treating the exterior of a contaminated, unfertilized shell egg, comprising the steps of:

(a) placing said shell egg in a sealed vessel, wherein the internal pressure of said sealed vessel is equal to atmospheric pressure;

(b) increasing the pressure inside said vessel to greater than atmospheric pressure by introducing gaseous ozone into said sealed vessel, wherein the total concentration of said gaseous ozone in said sealed vessel is about 20 to 40% V/V; and

(c) maintaining said shell egg in said sealed vessel following said increase in pressure for a period of at least one minute.

8 (currently amended): The method of claim 4 7, wherein said shell egg remains in said sealed vessel for a period of about 2 to 90 minutes following the introduction of said gaseous ozone into said sealed vessel.

9 (currently amended): The method of claim 4 7, wherein said gaseous ozone is generated by electrochemical means external to said sealed vessel, and is applied at a concentration greater than the concentration of ozone present in ambient air.

10 (original): A method for reducing bacterial contamination on the exterior of an unfertilized shell egg by at least 5 log₁₀ cfu/g, comprising the steps of:

- (a) placing said contaminated shell egg in a sealed vessel, wherein said sealed vessel has an internal pressure equal to atmospheric pressure and an internal temperature of about 4 to 25°C;
- (b) increasing the pressure inside said vessel to about 15 psi above atmospheric pressure by introducing gaseous ozone into said sealed vessel, wherein the final concentration of said gaseous ozone is about 20 to 40% V/V; and
- (c) maintaining said shell egg in said sealed vessel following said increase in pressure for a period of at least ten minutes.

Claim 11 (canceled)

Claim 12 (currently amended): The method of claim 11 13, wherein the wavelength of said ultraviolet light is 254 nm.

13 (currently amended): ~~The method of claim 11,~~ A method for treating the exterior of a contaminated, unfertilized shell egg, comprising the steps of:

- (a) exposing said shell egg to ultraviolet light, wherein the intensity of said ultraviolet light is about 1500 to 2500 $\mu\text{W}/\text{cm}^2$;
- (b) placing said contaminated shell egg in a sealed vessel, wherein the internal pressure of said sealed vessel is equal to atmospheric pressure;
- (c) increasing the pressure inside said vessel to greater than atmospheric pressure by introducing gaseous ozone into said sealed vessel; and

(d) maintaining said shell egg in said sealed vessel following said increase in pressure for a period of at least one minute.

14 (currently amended): The method of claim ~~11~~ 13, wherein, following said introduction of gaseous ozone, the internal temperature of said sealed vessel is maintained at a temperature of about 1 to 50°C.

15 (currently amended): The method of claim ~~11~~ 13, wherein said introduction of gaseous ozone raises the internal pressure of said sealed vessel to about 5 to 15 psi above atmospheric pressure.

16 (currently amended): ~~The method of claim 11~~ A method for treating the exterior of a contaminated, unfertilized shell egg, comprising the steps of:

(a) exposing said shell egg to ultraviolet light;

(b) placing said contaminated shell egg in a sealed vessel, wherein the internal pressure of said sealed vessel is equal to atmospheric pressure;

(c) increasing the pressure inside said vessel to greater than atmospheric pressure by introducing gaseous ozone into said sealed vessel, wherein the concentration of said gaseous ozone in said sealed vessel is about 20 to 40% V/V; and

(d) maintaining said shell egg in said sealed vessel following said increase in pressure for a period of at least one minute.

17 (currently amended): The method of claim ~~11~~ 13, wherein said contaminated, unfertilized shell egg remains in said sealed vessel for a period of about 2 to 3 minutes following the introduction of said gaseous ozone into said sealed vessel.

18 (currently amended): The method of claim ~~11~~ 13, wherein said gaseous ozone is generated by electrochemical means external to said sealed vessel, and is applied at a concentration greater than the concentration of ozone present in ambient air.

19 (canceled)

20 (currently amended): The method of claim ~~19~~ 21, wherein said the internal pressure of said sealed vessel is decreased to about 5 to 15 psi below atmospheric pressure.

21 (currently amended): ~~The method of claim 19,~~ A method for treating the interior of a contaminated, unfertilized shell egg, comprising the steps of:

- (a) placing said shell egg in a sealed vessel, wherein the internal pressure of said sealed vessel is equal to atmospheric pressure;
- (b) decreasing the pressure inside said vessel to less than atmospheric pressure,
- (c) introducing gaseous carbon dioxide and gaseous ozone into said sealed vessel, wherein said gaseous carbon dioxide is first introduced into said sealed vessel until a pressure of about 5 psi above atmospheric pressure is achieved, and wherein said gaseous ozone is subsequently injected into said sealed vessel until a pressure of about 15 psi above atmospheric pressure is achieved ;and
- (d) maintaining said shell egg in said sealed vessel following said introduction of gaseous ozone for a period of at least one minute.

22 (currently amended): ~~The method of claim 19,~~ A method for treating the interior of a contaminated, unfertilized shell egg, comprising the steps of:

- (a) placing said shell egg in a sealed vessel, wherein the internal pressure of said sealed vessel is equal to atmospheric pressure;
- (b) decreasing the pressure inside said vessel to less than atmospheric pressure;
- (c) introducing gaseous carbon dioxide into said sealed vessel;
- (d) introducing gaseous ozone into said sealed vessel, wherein the concentration of said gaseous ozone in said sealed vessel is about 20 to 40% V/V; and
- (e) maintaining said shell egg in said sealed vessel following said introduction of gaseous ozone for a period of at least one minute.

23 (currently amended): The method of claim 19 21, wherein said gaseous ozone is generated by electrochemical means external to said sealed vessel, and is applied at a concentration greater than the concentration of ozone present in ambient air.

24 (currently amended): The method of claim 19 21, wherein said shell egg remains in said sealed vessel for a period of about 2 to 10 minutes following the introduction of said gaseous ozone into said sealed vessel.

Claims 25-38 (canceled)